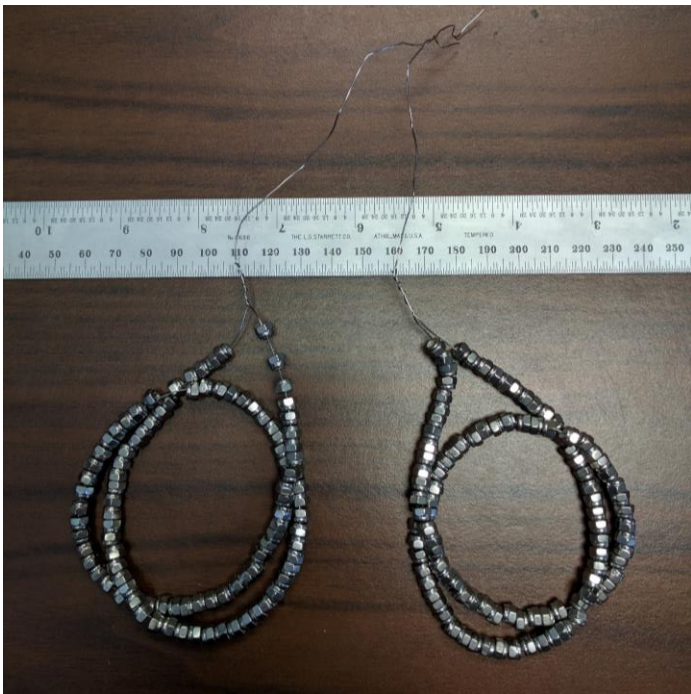
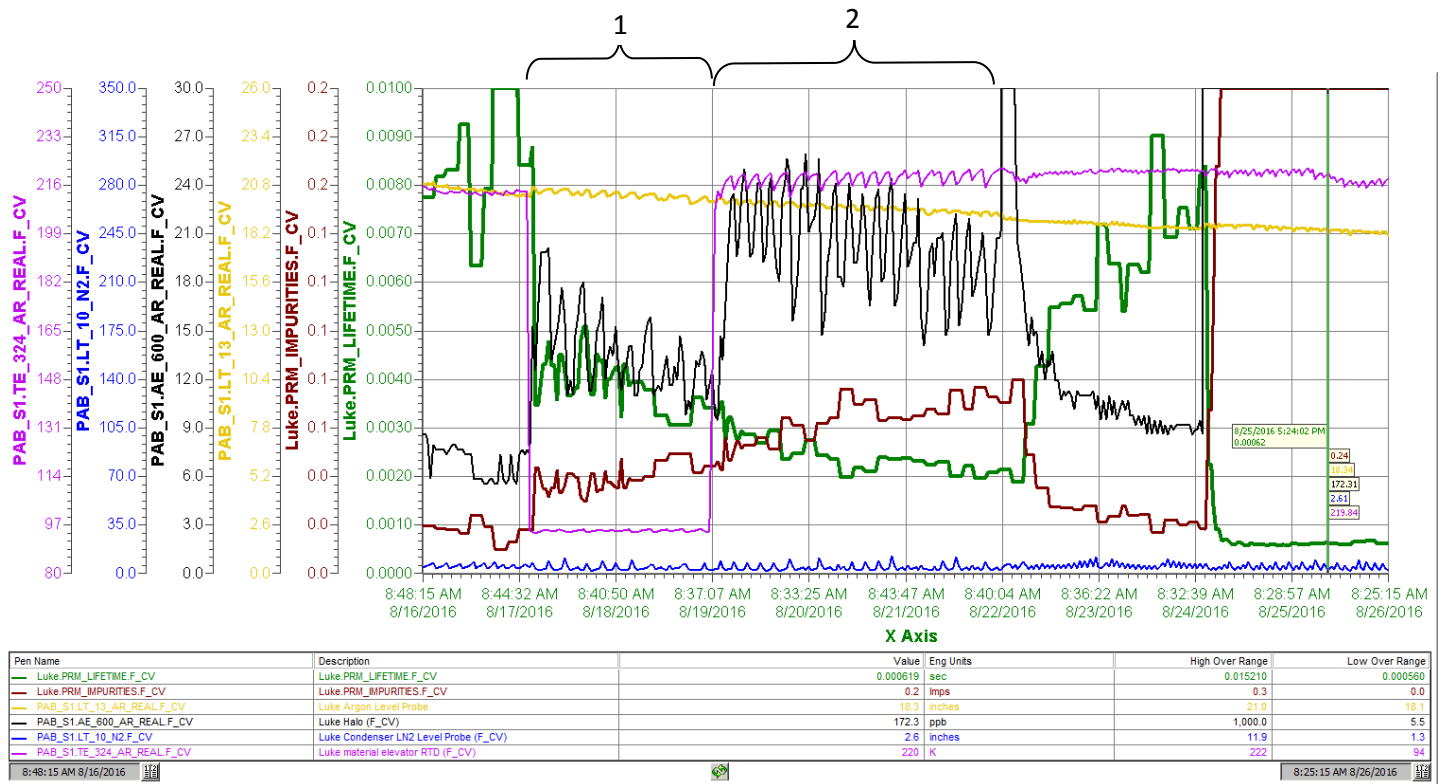


# Nylon insert locknuts 8/16/2016 – 8/26/2016

| <b><i>PAB Materials Test System</i></b> |  |
|---|--|
| <b>Date of Receipt</b>                  | 8/26/16 , logbook entry # 5305         |
| <b>Sample Name/Description</b>          | 200 x Nylon Insert Locknuts            |
| <b>Sample</b>                           |  |
| <b>Composition:</b>                     | Metal/Polymeric                        |
| <b>Picture Location:</b>                | data base                              |
| <b>Weight:</b>                          | 90 g                                   |
| <b>Dimensions/Area:</b>                 | length approx. 4 x 3 mm                |
| <b>Source:</b>                          | Hucheng Chen, Brookhaven               |
| <b>Preparation:</b>                     | dry clean                              |
| <b>Submerging in LAr or LH2</b>         | x                                      |
| <b>Time in the airlock(hrs)</b>         |  |
| <b>Vacuum:</b>                          |  |
| <b>Purge</b>                            | 24 hours with gas Argon from Luke      |
| <b>Liquid Test</b>                      |  |
| <b>Start Time/Date, End Time/Date :</b> | 8/17/2016 11:45 AM , 8/19/2016 8:35 AM |
| <b>PrM run # :</b>                      | 28739                                  |
| <b>Condenser state:</b>                 | on                                     |
| <b>Filter state/settings:</b>           | off                                    |
| <b>H2O reading:</b>                     | 10-12 ppb                              |
| <b>Temperature:</b>                     | 95 K                                   |
| <b>Liquid Level</b>                     | 20 inches                              |
| <b>Lifetime:</b>                        | 3.5 ms                                 |
| <b>VaporTest</b>                        |  |
| <b>Start Time/Date, End Time/Date :</b> | 8/19/2016 8:35 AM, 8/22/2016 8:40 AM   |
| <b>PrM run # :</b>                      | 28770                                  |
| <b>Condenser state:</b>                 | on                                     |
| <b>Filter state/settings:</b>           | off                                    |
| <b>H2O reading:</b>                     | 20-24 ppb                              |
| <b>Temperature:</b>                     | 220 K                                  |
| <b>Liquid Level</b>                     | 19.4 inches                            |
| <b>Lifetime:</b>                        | 2 ms                                   |
| <b>Room Temperature Test</b>            |  |
| <b>Start Time/Date, End Time/Date :</b> | 8/24/2016 10:40 AM, 8/26/2016 8:30 AM  |
| <b>PrM run # :</b>                      | 28818                                  |
| <b>Condenser state:</b>                 | on                                     |
| <b>Filter state/settings:</b>           | off                                    |
| <b>H2O reading:</b>                     | 140-160 ppb                            |
| <b>Temperature:</b>                     | room                                   |
| <b>Liquid Level</b>                     | 18 inches                              |
| <b>Lifetime:</b>                        | 0.6 ms                                 |



1. Liquid Test
2. Vapor Test



Lifetime – green pen

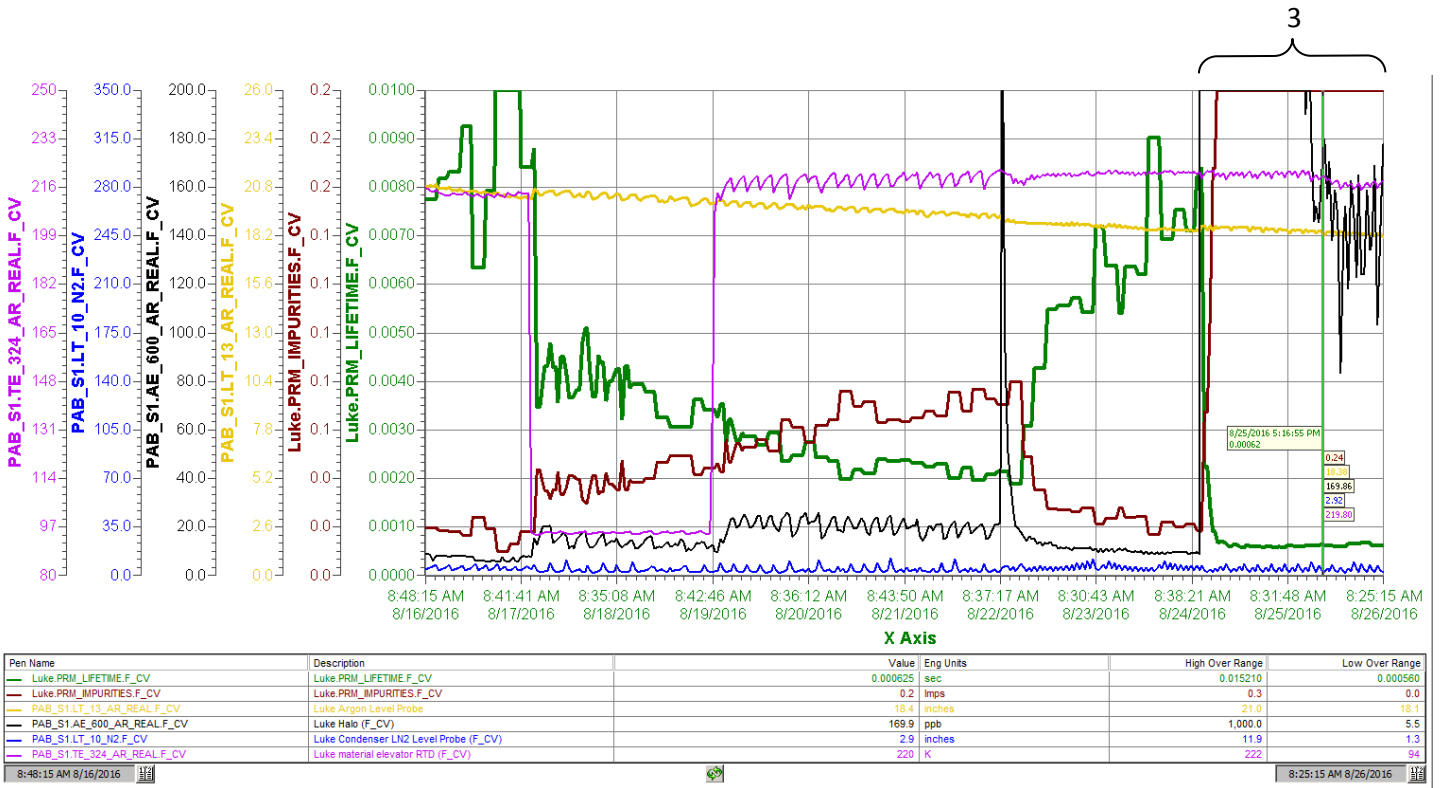
Impurities – brown pen

Liquid level – yellow pen

Water – black pen

Temperature – magenta pen

### 3. Room temperature test



Note: first and second plot are different only in the water concentration scale